

WE CLAIM AS OUR INVENTION:

App 1

1. A microlancet device formed of silicon and having a sharp point for piercing the skin of a subject.

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2. The microlancet device of Claim 1 wherein the microlancet device has a cross section between approximately 50 micrometers and approximately 250 micrometers.

3. The microlancet device of Claim 1 wherein the microlancet device has a length between approximately 1 millimeter and approximately 3 millimeters.

4. The microlancet device of Claim 1 and further comprising a nitride film deposited on the silicon substrate.

5. The microlancet device of Claim 5 wherein the nitride film has a thickness of approximately 2000 Angstroms.

6. The microlancet device of Claim 5 and further comprising coating of photoresist on the nitride film.

7. The microlancet device of Claim 5 and further comprising removing a portion of the nitride film.

8. The microlancet device of Claim 8 wherein the portion of the nitride film is removed by potassium hydroxide.

- 1 9. The microlancet device of Claim 9 and further
- 2 comprising a photoresist coating applied to the
- 3 silicon wafer.
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- 2 10. The microlancet device of Claim 10 and further
- 3 comprising patterning the silicon wafer with a plasma
- 4 etching process.
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- 2 11. The microlancet device of Claim 11 and further
- 3 comprising removing the photoresist coating.

- 1 12. A method-of constructing a microlancet device formed
- 2 of silicon and having a sharp point for piercing the
- 3 skin of a subject, the method comprising:
- 4 providing a silicon substrate; and
- 5 plasma etching the silicon substrate into a sharp probe
- 6 for piercing the patient's skin.
- 1 13. The method of Claim 13 and further comprising etching
- 2 the silicon wafer into a microlancet device having a
- 3 diameter between approximately 50 micrometers and
- 4 approximately 250 micrometers.
- 1 14. The method of Claim 13 and further comprising etching
- 2 the silicon wafer into a microlancet device having a
- 3 length between approximately 1 millimeter and
- 4 approximately 3 millimeters.
- 1 15. The method of Claim 13 and further comprising applying
- 2 a sulfuric acid/hydrogen peroxide mixture in water to
- 3 the silicon wafer.
- 1 16. The method of Claim 13 and further comprising
- 2 depositing a nitride film on the silicon wafer.
- 1 17. The method of Claim 17 wherein the nitride film has a
- 2 thickness of approximately 2000 Angstroms.
- 3 18. The method of Claim 17 and further comprising applying
- 4 a coating of photoresist on the nitride film.

- 1 19. The method of Claim 17 and further comprising removing
- 2 a portion of the nitride film.

- 1 20. The method of Claim 20 and further comprising removing
- 2 a portion of the nitride film with potassium hydroxide
- 3 etchant.

- 1 21. The method of Claim 21 and further comprising applying
- 2 a photoresist coating to the silicon wafer.

- 1 22. The method of Claim 22 and further comprising
- 2 patterning the silicon wafer with a plasma etching
- 3 process.

- 1 23. The method of Claim 23 and further comprising removing
- 2 the photoresist coating.

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